output of the analysis, such as the confidence intervals of the new forecast. Additionally or alternatively, the control device **111** may purchase or acquire additional electrical power or provisionally purchase or acquire additional electrical power from the energy market **130** based on the analysis of the new forecast. Additionally or alternatively, the control device **111** may set, modify, alter, reduce, and/or increase the price at which the VPP **110** is offering electrical power on the energy market **130** based on the analysis of the new forecast. For example, using the accuracy of the new forecast, the VPP **110** may be aware of the minimum solar energy production. Knowledge of the minimum energy production may instruct the control device **111** how much additional energy (besides solar energy) that will be needed in a worst case scenario. The control device **111** may acquire or make arrangements to acquire any additional energy through purchase or alternative power production.

[0032] The control device **111** may include one or more processors **116** (referred to as the processor **116**), a memory **117**, one or more storage devices **118** (referred to as the storage device **118**), and one or more communication devices **119** (referred to as the communication device **119**).

[0033] The processor **116** may include any suitable special-purpose or general-purpose computer, computing entity, or processing device including various computer hardware or software modules and may be configured to execute instructions stored on any applicable computer-readable storage media, such as the memory **117** and/or the storage device **118**. For example, the processor **116** may include a microprocessor, a microcontroller, a digital signal processor (DSP), an application-specific integrated circuit (ASIC), a Field-Programmable Gate Array (FPGA), or any other digital or analog circuitry configured to interpret and/or to execute program instructions and/or to process data. Although illustrated as a single processor in FIG. **1**, the processor **116** may include any number of processors configured to perform, individually or collectively, any number of operations described in the present disclosure. Additionally, one or more of the processors may be present on one or more different electronic devices, such as different devices coupled together or communicating remotely.

[0034] In some embodiments, the processor **116** may interpret and/or execute program instructions and/or process data stored in the memory **117**. In some embodiments, the processor **116** may fetch program instructions from the storage device **118** and load the program instructions in the memory **117**. After the program instructions are loaded into memory **117**, the processor **116** may execute the program instructions. In some embodiments, the execution of instructions by the processor **116** may direct and/or control the operation of the VPP **110** and/or the control device **111**. For example, the processor **116** may send a message from the control device **111** to one or more of the electrical power generating devices to increase or decrease electrical output.

[0035] The memory **117** and the storage device **118** may include computer-readable storage media for carrying or having computer-executable instructions or data structures stored thereon. Such computer-readable storage media may include any available media that may be accessed by a general-purpose or special-purpose computer, such as the processor **116**. By way of example, and not limitation, such computer-readable storage media may include tangible or non-transitory computer-readable storage media including RAM, ROM, EEPROM, CD-ROM or other optical disk storage, magnetic disk storage or other magnetic storage devices, flash memory devices (e.g., solid state memory devices), hard disk drives (HDD), solid state drives (SSD), or any other storage medium which may be used to carry or store desired program code in the form of computer-executable instructions or data structures and which may be accessed by a general-purpose or special-purpose computer. The computer-readable storage media may be configured as a stand-alone media or as part of some other system, component, or device. The computer-readable storage media may be configured as a physical media or as a virtualized media. Combinations of any of the above may also be included within the scope of computer-readable storage media. Computer-executable instructions may include, for example, instructions and data configured to cause the processor **116** to perform a certain operation or group of operations.

[0036] The communication device **119** may include any component, device, system, or combination thereof configured to transmit or receive information. The communication device **119** may communicate with other devices at other locations, the same location, or even other components within the same system. The communication device **119** may include, without limitation, a modem, a network card (wireless or wired), an infrared communication device, a wireless communication device (such as an antenna), and/or chipset (such as a Bluetooth device, an 802.6device (e.g. Metropolitan Area Network (MAN)), a WiFi device, a WiMax device, cellular communication facilities, etc.), and/or the like. The communication device **119** may permit data to be exchanged with the network **140** and/or any other devices described in the present disclosure, including any of the power generating devices.

[0037] Modifications, additions, or omissions may be made to the system **100** without departing from the scope of the present disclosure. For example, in some embodiments, the system **100** may include any number of other components that may not be explicitly illustrated or described, such as a nuclear power generating device. As another example, the control device **111**, while illustrated as a single device, may be any number of devices or systems communicatively coupled. For example, certain of the tasks performed by the control device **111** may be performed by a server, cloud-based service, or any other remote device, and may be invoked by a client using a web- browser, portable device, etc.

[0038] FIG. **3** is an example flow diagram of a method **300** of operating a solar power generating system, in accordance with at least one embodiment of the present disclosure. The method **300** may be performed by any suitable system, apparatus, or device. For example, the system **100**, the VPP **110**, or the control device **111** of FIG. **1** may perform one or more of the operations associated with the method **300**. Although illustrated with discrete blocks, the steps and operations associated with one or more of the blocks of the method **300** may be divided into additional blocks, combined into fewer blocks, or eliminated, depending on the desired implementation.

[0039] At block **305**, a solar power generating system may be used to generate electrical power. Such a power generating system may include a VPP (such as the VPP **110** of FIG. **1**), or may be any other system with a solar power generating device.